PATENT Docket No. 37213-00000

### ASSIGNMENT FOR PATENT

#### WHEREAS:

Pictos Technologies, Inc. a corporation organized and under the laws of the State of Delaware, having the address of 4311 Jamboree Road Newport Beach, CA 92660

(hereinafter referred to as ASSIGNOR(S)), owns an interest in, to and under inventions listed in Appendix A, and in, to and under Letters Patent or similar legal protection to be obtained therefore in the United States and in any and all foreign countries for which applications for Letters Patent of the United States have been filed on dates listed in Appendix A, and

#### WHEREAS:

ESS Technologies International, Inc., a corporation organized and under the laws of the Cayman Islands having a place of business at 48401 Fremont Blvd. Fremont, CA 94538

(hereinafter referred to as ASSIGNEE), is desirous of acquiring ASSIGNOR'S entire interest in, to and under said inventions and in, to and under Letters Patent or similar legal protection to be obtained therefore in the United States and in any and all foreign countries.

### NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN:

Be it known that in consideration of good and valuable consideration, the receipt of which is hereby acknowledged, ASSIGNOR(S) hereby sells, assigns and transfers to ASSIGNEE, its successors, legal representatives and assigns, the full and exclusive right, title and interest to said discoveries or inventions in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries to be obtained for said invention by said application or any continuation, division, renewal, substitute or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted.

- I, SAID ASSIGNOR(S), hereby authorize and request the Commissioner of Patents and Trademarks of the United States of America and any Official of any country or countries foreign to the United States of America whose duty it is to issue Letters Patent on applications as aforesaid, to issue all such Letters Patent for said discoveries or inventions to the ASSIGNEE, as assignee of the entire right, title and interest in, to and under the same, for the sole use and behalf of the ASSIGNEE, its successors, legal representatives and assigns, in accordance with the terms of this instrument.
- I, SAID, ASSIGNOR(S), hereby covenant that I have full right to convey the entire right, title and interest herein sold, assigned, transferred and set over;

AND I, SAID ASSIGNOR(S) hereby further covenant and agree that the ASSIGNEE, its successors, legal representatives, or assigns, may apply for foreign Letters Patent on said discoveries or inventions and claim the benefits of the International Convention, and that I will, at any time, when called upon to do so by the ASSIGNEE, its successors, legal representatives, or assigns, communicate to the ASSIGNEE, its successors, legal representatives, or assigns, as the case may be, any facts known to me respecting said discover or invention, and execute and deliver and all lawful papers that may be necessary or desirable to perfect the title to the said discoveries or inventions, the said applications and the said Letters Patent in the ASSIGNEE, its successors, legal representatives and assigns, and that it reissues of the said Letters Patent or disclaimers relating thereto, or divisions, continuations, or re-filings of the said applications, or any thereof, shall hereafter be desired by the ASSIGNEE, its successors, legal representatives, or assigns, sign all lawful papers, make all rightful oaths, execute and deliver all such disclaimers and all divisional, continuation and reissue applications so desired, and do all lawful acts requisite for the application for such reissues and the procuring thereof and for the filing of such disclaimers and such applications, and generally do everything possible to aid the ASSIGNEE, its successors, legal representatives and assigns, to obtain and enforce proper patent protection for said invention or discover in all countries, and without further compensation but at the expense of the ASSIGNEE, its successors, legal representatives and assigns.

Docket No. 37213-00000 Assignor's signature: Fred S.L. Chan USA Citizenship: 25 day of JUNE IN WITNESS WHEREOF, I have hereunto set my hand and affixed my seal this \_\_ 2004 ) California STATE OF 22. ) Alameda COUNTY OF 2004 before me, the undersigned authority, personally appeared to me On this 25 day of June known and known to me to be the individual who is described in and who executed the foregoing Assignment, and who duly acknowledged to me that he executed the same as his own voluntary act and deed for the uses and purposed therein specified. KIM PALMER-CLARK Notary Public Commission # 1488230 Notary Public - California Alomeds County My Comm. Expires May 7, 2008

# ATTACHMENT A

## GROUP 1

Ī	Issued Palents
Ī	5,381,054
	5,440,079
Π	5,502,299
	5,572,074
	5,572,643
	5,706,369
	5,892,540
	5,929,434
	5,932,875
	6,040,567
	6,153,955
	6,256,350
	6,271,884
	6,305,853
	6,437,826
	6,441,453
	6,441,857
	6,462,781
$\perp$	6,486,522
	6,493,030
$\perp$	6,498,331
$\perp$	6,507,364
_	6,532,040
<u>_</u>	6,534,796
<u> </u>	6,535,247
$oxed{oxed}$	6,563,363
	6,580,456
<u> </u>	6,587,142
<u> </u>	6,593,607
	6,597,394
	6,617,562
	6,639,204
	6,677,996
	6,697,111
	6,744,032

# **GROUP 2**

	Parelli
	2 Applications
	09/034,819
	09/062,343
	09/188,831
	09/188,871
	09/188,996
	09/268,913
	09/371,491
	09/407,395
	09/407,501
	09/407,556
	09/408,198
	09/408,919
	09/410,210
	09/468,696
	09/538,889
	09/557,454
	09/672,987
	09/676,538.
1	09/676,551
١	09/676,998
İ	09/677,227
ľ	09/679,854
	09/680,036
	09/680,037
	09/731,640
	09/733,788
	09/742,786
	09/795,033
	09/801,401
	09/815,584
_	09/823,941
_	09/852,397
_	09/882,576
	09/935,213
_	09/935,231
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	09/949,688	
	09/977,444	
	10/016,713	
	10/057,731	
	10/072,345	Ì
	10/102,042	
	10/102,105	
	10/102,410	
	10/113;545	
į	10/119,982	
Į	10/136,268	
	10/136,413	
	10/293,510	
	60/376,690	
	60/376,748	
	60/376,750	
	60/376,751	

# APPENDIX A

# **ISSUED PATENTS**

Pateni No.	THE C	Inventor		Date et aRecordan
5,381,054	Multiple input comparator circuit for a switched resistive network	Standley; David L	013699/0267	01/29/200
5,440,079	Object-background discrimination using analog VLSI circuit	Mathur , et al.	013699/0267	01/29/2003
5,502,299	Current ratio circuit for multi-color imaging	Standley; David L.	013699/0267	01/29/2003
5,572,074	Compact photosensor circuit having automatic intensity range control	Standley; David L.	013699/0267	01/29/2003
5,572,643	Web browser with dynamic display of information objects during linking	Judson; David H.	011911/0220 (ZING)	06/19/2001
5,706,369	Base-n resolution converter	Wang , et al.	.013699/0267	01/29/2003
5,892,540	Low noise amplifier for passive pixel CMOS imager	Kozlowski , et al.	013699/0267	01/29/2003
5,929,434	Ultra-low noise high bandwidth interface circuit for single-photon readout of photodetectors	Kozlowski , et al.	013699/0267	01/29/2003
5,932,875	Single piece integrated package and optical lid	Chung, et al.	013699/0267	01/29/2003
5,040,567	Method and device for controlling fast periodic motion	Neher, et al	013496/0589	08/14/2002
5,153,955	Implementing comprehensive PID engine with single bit adder	Cheung , et al.	013496/0589	08/14/2002
.256,350	Method and apparatus for low cost line-based video compression of digital video stream data	Bishay , et al.	013496/0589	08/14/2002
271,884	Image flicker reduction with fluorescent lighting	Chung, et al.	013496/0589	08/14/2002

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Ratent No	THE	Inventor	Reel/Fram	
			10,000	Recordat
6,305,853	1	Bishay, et al.	013496/0589	08/14/200
	reflective imager			
6,437,826	<b>-</b>	Arnold; Thomas A	013209/0732	08/22/200
	teleconferencing camera			
	system having a base			
5,441,453	Clear coating for digital and	d Tindle; Gary D.	011805/0861	05/09/200
	analog imagers		(CONEXANT)	
6,441.857	Method and apparatus for	Wicker, et al.	013496/0589	08/14/200
	horizontally scaling			
	computer video data for			
	display on a television	Ţ	•	1
6,462,781	Foldable teleconferencing	Arnold; Thomas A.	013209/0732	08/22/200
	camera			
6,486,522	Light sensing system with	Bishay , et al	013496/0589	08/14/2002
	high pixel fill factor	, , , , , , , , , , , , , , , , , , , ,		
6,493,030	Low-noise active pixel	Kozlowski, et al.	013496/0589	08/14/2002
	sensor for imaging arrays			1
	with global reset		}	
6,498,331	Method and apparatus for	Kozlowski , et al.	013496/0589	08/14/2002
0, 100,00	achieving uniform low dark	TODONOM, or al.	0.0430,0303	00/1-/2002
	current with CMOS		ſ	
	photodiodes			
6,507,364	Edge-dependent	Bishay, et al	012273/0217	11/05/2001
0,007,004	interpolation method for	Distiay, et al	(CONEXANT)	11/03/2001
	color reconstruction in		(CONEXALL)	·
	image processing devices			•
6,532,040	Low-noise active-pixel	Kozlowski , et al.	012273/0217	11/05/2001
0,002,040	sensor for imaging arrays	NOZIOWSKI, OL AL.	i	11/03/2001
	with high speed row reset		(CONEXANT)	
5,534,796	Integrated circuit optics	Dishau at al	013496/0589	08/14/2002
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	assembly unit	Bishay , et al.	013490/0369	00/14/2002
5,535,247	Active pixel sensor with	Kozlowski , et al.	013496/0589	08/14/2002
1,000,241	capacitoriess correlated	KOZIOWSKI, EL al.	013490/0369	00/14/2002
j	double sampling			
,563,363	Switched capacitor	Tay; Hiok-Nam	013851/0225	03/17/2003
,000,000	comparator network	ray, riiok-ivaili	013031/0223	03/1//2003
,580,456	Programmable timing	Jacobs; William S.	ODDED NOSEE	11/09/1998
,000,430		Jacobs, whitam 5.	009594/0366	11/09/1998
1	generator		(SIERRA	
587,142	Low-noise active-pixel	Kozlowski , et al.	IMAGING)	00144/0000
307,142		NUZIOWSKI, et al.	013496/0589	08/14/2002
ļ	sensor for imaging arrays with high speed row reset			
,	with high speed fow reset		ľ	

Parat Vi		Liventor	C 1 112-140-140-141	Recordation
6,593,607	Image sensor with enhanced blue response and signal cross-talk suppression	Hselh; Biay-Cheng	013496/0589	08/14/2002
6,597,394	Programmable image transform processor for digital image processing	Duncan , et al.	009591/0524 (SIERRA IMAGING)	11/09/1998
6,617,562	CMOS imager with discharge path to suppress reset noise	Mann; Richard A.	011232/0239 (CONEXANT)	10/05/2000
6,639,204	Solid state color imager and method of manufacture	Mann; Richard A.	013851/0225	03/17/2003
6,677,996	Real time camera exposure control	Chung , et al.	013496/0589	08/14/2002
6,697,111	Compact low-noise active pixel sensor with progressive row reset	Kozlowski , et al.	013851/0225	03/17/2003
6,744,032	Arrangement of microlenses in a solid state image sensor for improving signal to noise ratio	Tay; Hiok-Nam	013851/0225	03/17/2003
6,617,562	CMOS imager with discharge path to suppress reset noise	Mann; Richard A.	011232/0239	10/05/2000

# PATENT APPLICATIONS

A NAME OF			1 4 NO 7	Recordation
09/034,819	Method and apparatus for compensating for geometric distortion caused by a lensing system in a digital image detector	Pine, Joshua I.	010885/0931	06/02/2000
09/062,343	CMOS imaging apparatus	Ferry et al.		04/17/1998 (filed)

Application	r Tine	Inventor	≥ Reel/Eram	Recordation
09/268,913	Low noise CMOS active-	Kozlowski et al.	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	03/16/1999
09/208,913	pixel sensor for imaging	NUZIOWSKI GL GI.		(filed)
	arrays with high speed		}	(
	global or row reset			
09/371,491	Imager with orientation	Pine, Josh I	013496/0589	08/14/2002
05/5/1,471	correction capabilities			
09/407,395	Color imager without filter	Bishay et al		9/28/1999
		·	<u> </u>	(filed)
09/407,501	An integrated camera	Bishay et al.	013496/0589	08/14/2002
	module			
09/407,556	Hybrid multiple sensor	Bishay et al.	013496/0589	08/14/2002
	device			<u> </u>
09/408,198	Infrared communication	Chung, Randall M.	013496/0589	08/14/2002
	system utilizing receiver			
	with multiple photo-sensors	5. 5.		00/20/4020
09/410,210	Active pixel sensor with	Hseih, Biay-Cheng	j	09/30/1999
Ì	multiplexed photosensing			(filed)
20/502 000	elements readout scheme	Dana Blata M	040400/0500	00/44/0000
09/538,889	Automatic gain control	Dong, Blake, M.	013496/0589	08/14/2002
	algorithm for pc-based			
09/557,454	video camera	Kozlowski et al.	013496/0589	08/14/2002
09/357,434	CMOS JFET amplified pixel	NOZIOWSKI EL BI.	013480,0308	00/1 <del>1</del> /2002
09/672,987	Selectable resolution	Pine, Joshua I.	013496/0589	08/14/2002
05/0/2,507	image capture system	Tho, oomaa ii		00.1
09/676,538	Combined digital image	Najand, Shahriar	011178/0767	09/29/2000
0,,0,,0,0	across talk correction and			
	interpolation		<del>,</del>	
09/676,551	NO FILE			
09/676,998	Exposure control in	Pine, Joshua I.	013496/0589	08/14/2002
	electromechanical imaging			1
	devices			
09/677,227	NO FILE			
09/679,854	NO FILE		•	
09/680,036	NO FILE			00/11/0000
09/731,640	Imaging system for	Pine, Joshua I.	013496/0589	08/14/2002
į	minimizing pixel defects		ł	1
00/722 700	Tabanad manifestar mage	Dina Janhua I	013496/0589	08/14/2002
09/733,788	Enhanced resolution mode	Pine, Joshua I.	0 1244 a0\000a	00/14/2002
	using color image capture			İ
	device		·	
Į	1		1	j

Application	300	Inventor	Reel/Frame	Date of Recordation
NO.		Cine Joshua	013496/0589	08/14/2002
09/742,786	Automatic detection and	Pine, Joshua I.	013490/0309	00/14/2002
	correction of pixel defects		-	į .
	in solid state imagers	Pine, Joshua I.	013496/0589	08/14/2002
09/795,033	Imaging system having	Pine, Joshua I.	0 13490/0303	00/14/2002
	selectable interpolation			
44.004.754	processing	Pine, Joshua I.	013496/0589	08/14/2002
09/801,401	Imaging system having an	Pine, Joshua I.	013490/0009	00/14/2002
	image memory between	1		
	the functional processing			
09/815,584	system lmaging system having	Pine, Joshua I.	013496/0589	08/14/2002
179/813,384	adaptive clocking in	Fille, Joshua I.	010100/0005	00/1/200-
	response to processing			
	state	ĺ	1	i
09/823,941	NO FILE			
09/852,397	Chip On Board (COB)	Tindle et al.	013496/0589	08/14/2002
037032,377	package for CMOS Imager	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
09/882,576	NO FILE			
09/935,213	NO FILE	1.		
09/935,231	Semiconductor device for	Mann, Richard A.	013851/0225	03/17/2003
4,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	isolating a photodiode to	j	]	
	reduce junction leakage and		1	
	method of formation		0.10.100/0500	004440000
.09/949,688	Off-grid interpolation in image	Bao et al.	013496/0589	08/14/2002
	processing			
09/977,444	NO FILE	Description Octobro	014081/0620	05/16/2003
10/016,713	Method and article of	Bencuya, Selim S.	014081/0020	03/10/2003
	manufacture for micro-lens resulting from multi-stage		<b>!</b> .	
	fabrication technique.		1	
10/057,731	NO FILE			
10/072,345	Imaging system combining	Pine, Joshua I.		10/25/2001
10.072,0 (0	multiple still images for			(filed)
	higher resolution image		1	
	output		<u> </u>	
10/102,042	Efficient implementation of	Pan, Shien-Tai	103022/0288	06/24/2002
	a noise removal filter	·	<u> </u>	
10/102,105	Image resolution	Bao et al.		03/20/2002
i	conversion using pixel		[	(filed)
	dropping			
10/102,410	NO FILE			
10/113,545	NO FILE			00/47/0000
10/119,982	Tapered threshold reset	Kozlowski et al.	013851/0225	03/17/2003
1	FET for CMOS imagers	. !		_ <u></u>

Application	<b>Tit</b>	. Inventor	Real/ Frames	Date of Recordation
10/136,268	NO FILE			
10/136,413	Suppressing radiation charges from reaching dark signal sensor	Mann et al.	013851/0225	03/17/2003
10/293,510	Semiconductor device for isolating a photodiode to reduce junction leakage and method of formation	Mann, Richard A	013851/0225	03/17/2003
60/376,690	NO FILE			
60/376,748	NO FILE			
60/376,750	NO FILE			
60/376.751	NO FILE			